

# More Strobilurin-Resistant Powdery Mildew Detected In Vineyards

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**POWDERY** mildew strains resistant to the strobilurin fungicides Amistar, Cabrio and Flint have recently been confirmed in vineyards in Victoria and Western Australia.

Testing of samples of powdery mildew in these vineyards confirmed a high level of the resistant G143A gene – which prevents strobilurin chemistry from binding to the fungus, rendering the strobilurin fungicides ineffective.

The development of these recent strains – as well as a case reported from South Australia last season – signal the need for a different approach to using these products on wine and table grapes in Australia.

In Europe and parts of the USA where strobilurins have been used for a longer time, resistant strains of both powdery mildew and downy mildew have been causing crop losses in vineyards since the early 2000s.

The South Australian vineyard with the first confirmed Australian case of strobilurin

A BUNCH of Chardonnay grapes infected with powdery mildew despite a robust spray program that included two strobilurin applications. Samples of mildew taken from this bunch were tested in Germany and confirmed to be resistant to the strobilurin fungicides.



resistance had received four consecutive sprays of strobilurins; the site also had a history of trials that included more applications than is now recommended.

Aiming to avoid further development of resistant strains in Australian vineyards, a resistance-management strategy for strobilurin use was introduced last year, recommending that no more than two strobilurin sprays be applied to grapevines per season.

Since their introduction for use on grapes more than 10 years ago, strobilurin fungicides have provided excellent control of both powdery and downy mildew in Australian vineyards – and they still have a place for their effectiveness against downy mildew, in spite of these recent reports of powdery mildew resistance in more vineyards.

The strobilurins are most effective when applied around flowering.

Because the occurrence of resistance to powdery mildew and potential crop loss cannot be predicted, growers are advised to tank mix any strobilurin fungicide with the registered rate of another powdery mildew fungicide as a further precaution.

A number of fungicides with different modes of action are registered for the control of powdery mildew on vines, and most will be suitable to mix with a strobilurin fungicide. Compatibilities of different mixes should always be checked with the manufacturers before mixing.

In recent trials, good control of both downy and powdery mildew was achieved with spray programs that included different fungicides before and after flowering – with a tank mix of Filan and Cabrio applied at early flowering, followed by either Vivando, Legend or Prosper at cap fall.

**More information:**

Dr Trevor Wicks  
Senior Research Scientist, Horticulture Pathology, SARDI  
08) 8303 9563  
trevor.wicks@sa.gov.au

Doug Wilson  
R&D Projects Coordinator  
Nufarm & Crop Care  
03 9282 1427 0427 806 386  
doug.wilson@au.nufarm.com

